

### **REMARKS**

In response to the Final Office Action of March 24, 2008, please reconsider the present application in view of the following remarks. Applicant thanks the Examiner for carefully considering the application.

#### **Status of Claims**

Claims 1-21 are currently pending. Claims 1, 8, and 12 are independent.

Claims 1-3 and 5-7 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,738,978 (“Hendricks”) in view of U.S. Patent No. 6,088,722 (“Herz”). Rejections of claims 2-21 from previous Office Actions were maintained in the instant Office Action.

#### **Interview Summary**

On May 15, 2008, Steven Laut (Reg. 47,736) had an interview with the Examiner. During the interview Mr. Laut explained the differences between the cited prior art (Hendricks and Herz) and the present application. Mr. Laut and the Examiner reviewed the claim language and possible claim amendments that may overcome the cited prior art.

#### **Rejection under 35 U.S.C. 103(a)**

##### ***Claims 1-3 and 5-7***

The rejection is respectfully traversed because Hendricks and Herz, whether considered separately or in combination, fail to show or suggest the claimed limitations. According to MPEP §2142

[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that ‘rejections on obviousness cannot be sustained with mere conclusory statements; instead there must be some articulated

reasoning with some rational underpinning to support the legal conclusion of obviousness.’ *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR*, 550 U.S. at \_\_\_, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval).

Further, according to MPEP §2143, “[T]he Supreme Court in *KSR International Co. v. Teleflex, Inc.* 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1395-1397 (2007) identified a number of rationales to support a conclusion of obviousness which are consistent with the proper “functional approach” to the determination of obviousness as laid down in *Graham*.” And, according to MPEP §2143.01, [o]bviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006). Further, “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art.” *KSR International Co. v. Teleflex, Inc.* 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1396 (2007). Additionally, according to MPEP §2143

[a] statement that modification of the prior art to meet the claimed invention would have been “well within the ordinary skill of the art at the time the claimed invention was made” because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Pat. App. & Inter. 1993).

The claimed invention is directed to a television rating system for targeted program delivery. Independent claim 1 requires, in part, a clustering engine included in the *server-side system* for receiving the television viewing data, processing the television viewing data, and generating user profiles targeting the category groups; a *client-side system* coupled to the server-side system and *adapted to classify a television user into at*

*least one of the category groups based on category prototypes received from the clustering engine.”* (Emphasis Added).

Advantageously, embodiments of the claimed invention provide an intelligent and flexible method for targeted program delivery.

The instant Office Action agrees that Hendricks does not show or suggest the above-mentioned limitations, but asserts that Herz (col. 41, lines 55-60) supplies a customer profile system that calculates the agreement matrix at the customer's set top terminal from the customer profiles stored in the set top multimedia terminal and the content profiles of the received video programming. Applicant respectfully disagrees. The instant Office Action seemingly equates the customer profile system of Herz to the claimed “behavioral profiling agent.” Herz does not show or suggest its customer profile system to be “included in the client-side system” and for “deriving” profiling information as the claimed “behavioral profiling agent.”

The cited portion of Herz (col. 41, lines 55-60), relied upon by the Examiner, reads:

In a one-way data transmission system in accordance with the invention, a customer profile system in accordance with the invention calculates *the agreement matrix at the customer's set top multimedia terminal* from the *customer profiles stored in the set top multimedia terminal* and the content profiles of the received video programming. This technique allows the set top multimedia terminal to create "virtual channels" of the video programming received which the set top multimedia terminal deems most desirable on the basis of the customer's profile(s). (Emphasis added).

Distinguishable, in Applicant's claimed invention a server-side system for evaluates television viewing data and categorizes the data into category groups. A clustering engine included in the server-side system receives the television viewing data,

processes the television viewing data, and generates user profiles targeting the category groups. Then, a client-side system classifies a television user into at least one of the category groups based on category prototypes received from the clustering engine included in the server-side system.

Further, Herz teaches away from the claimed limitations by disclosing that the customer profile system resides at the server side.

For example, col. 4, lines 50-65 of Herz reads:

The initial customer profiles are determined from customer questionnaires, customer demographics, relevance feedback techniques, default profiles, and the like, while the initial content profiles are determined from questionnaires completed by "experts" or some sort of customer's panel, are generated from the text of the video programs themselves, and/or are determined by adopting the average of the profiles of those customers who actually watch the video program. Based on the comparison results, one or more customized programming channels are created for transmission, and from those channels, each customer's set top multimedia terminal may further determine "virtual channels" containing a collection of only those video programs having content profiles which best match the customer's profile and hence are most desirable to the customer during the relevant time frame.

From the above passage (col. 4, lines 50-65), it is clear that the customer profile system in Hertz resides at the server side (central location) and not at the client side (user set top terminal). Further, the collection and analysis of the questionnaires, demographics, etc., show that the customer profile system in Herz operates at a server side (central location) for calculating an agreement matrix using customer profiles and received programming profiles, wherein only the customer profiles and programming profiles reside at the customer's set top multimedia terminal.

Further, col. 10, lines 15-21 of Herz reads:

In accordance with the preferred embodiment of the invention, the content profiles describe the contents of video programs and are compared mathematically in a computer to customer profiles to generate an agreement matrix which establishes the degree of correlation between the preferences of the customer or customers and the video programming available during each video programming time slot.

From the above passage (col. 10, lines 15-21), it is clear that in Hertz a central system and computer are used to compare the contents of video programs with the customer profiles. The contents of video programs are only available in the central system, not in the individual user set top terminal (client side). As a further example, col. 42, lines 54-63 of Herz reads:

In the two-way implementation, *the customer profile system is implemented at the video head end* by creating an agreement matrix for all customers from customer profiles stored at the head end and content profiles of the video programming to be transmitted. This technique allows the video head end operator to objectively determine which video programming is most likely to be desired by his or her customers and also allows one to minimize the memory requirements at the set top multimedia terminal. (Emphasis added)

The above passage (col. 42, lines 54-63) further corroborates that the customer profile system of Herz is located in the head end (central location or server side), and not the user set top terminal (client side).

Even if Hendricks is combined with Herz, the resulting invention would fail to teach or suggest a “*client-side system coupled to the server-side system and adapted to classify a television user into at least one of the category groups based on category prototypes received from the clustering engine.*” (Emphasis Added). Further, the assertions made in the Office Action on page 4 that lead to a conclusion of obviousness are not explicit and the basic requirements of an articulated rationale under MPEP 2143

cannot be found. Additionally, since neither Hendricks, Herz, and therefore, nor the combination of the two, teach, disclose or suggest all the limitations of Applicant's amended claim 1, as listed above, Applicant's amended claim 1 is not obvious over Hendricks in view of Herz since a *prima facie* case of obviousness has not been met under MPEP §2142. Additionally, the claims that directly or indirectly depend from amended claim 1, namely claims 2, 3 and 5-7, would also not be obvious over Hendricks in view of Herz for at least the same reason.

Accordingly, withdrawal of the rejection is respectfully requested.

*Claim 4*

Claim 4 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks in view of Herz, and further in view of U.S. Patent Application Pub. No. 2005/0193410 (“Eldering”). The rejection is respectfully traversed because for at least the following reasons, Hendricks, Herz and Eldering, alone or combined, fail to show or suggest the claimed limitations.

Claim 4 depends from amended claim 1 and includes all the limitations of claim 1. More specifically, claim 4 also has the limitation of “behavioral profiling.” As discussed above, Hendricks and Herz do not teach, disclose or suggest Applicant’s amended claim 1 limitations of “*client-side system coupled to the server-side system and adapted to classify a television user into at least one of the category groups based on category prototypes received from the clustering engine.*” (Emphasis Added). Eldering, like Hendricks and Herz discussed above, also fails to show or suggest at least the above-mentioned claimed limitations, and fails to supply what is missing in Hendricks and Herz. Further, Eldering is, in fact, completely silent with respect to “behavioral profiling” as required by claim 4. This is also evidenced by the fact that Eldering was relied upon by the Examiner merely to supply a specific clustering engine.

In view of the above, Hendricks, Herz, and Eldering, whether considered separately or in any combination, fail to show or suggest all of the limitations of claim 4.

Thus, claim 4 of the present application is patentable over Hendricks, Herz, and Eldering for at least the reasons set forth above.

Accordingly, withdrawal of the rejection of claim 4 is respectfully requested.

*Claims 8-10*

Claims 8-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,798,785 (“Hendricks (785)”) in view of U.S. Patent No. 6,177,931 (“Alexander”). The rejection is respectfully traversed because for at least the following reasons, Hendricks (785) and Alexander, alone or combined, fail to show or suggest the claimed limitations.

Independent claim 8 of the present application requires, in part, a client-side device for recording “contextual *transition behaviors* profiling” the user to continually build a user profile of preferences and contextual transition behaviors associated with the user. Further, amended claim 8 requires, in part, “a program distributing device at the head-end side for providing to the user the program content in accordance with the user profile, wherein *a user is classified at the client-side into at least one category group based on category prototypes received from the head-end side.*” (Emphasis Added). In the Office Action dated July 6, 2006 (page 9, lines 9-14), the Examiner asserts that the microprocessor 602 of Hendricks (785) records “contextual transition behaviors.” Applicant respectfully disagrees. Hendricks (785), in col. 29, lines 26-43, discloses recording “clues” such as “programs watched and time periods of television viewing.”

However, such clues are not equivalent to the “contextual *transition behaviors*” of the claimed invention. The concept of “transition,” as clearly defined in the specification of the present application, is completely different from the static recording of “programs watched and time periods of television viewing.” Rather, referring to, *e.g.*, paragraphs [0036], [0037], [0063], [0064] and [0069] of the publication (Pub. No. 2003/0101451) of the current application No. 10/043,714, “transition” is a dynamic concept including, for example, transition *events* and *state* transitions. More specific examples of the

“transition” include regular program and Ad *transitions*. Advantageously, the claimed invention can use program arrival and departure *frequency* and *click timing* as preference indicators (*see, e.g.*, paragraph [0007] of the published application), which is an intelligent process as compared to rudimentary systems where only “programs watched and time periods of television viewing” are recorded.

For example, two television users A and B both watch CNN for one hour a day, and both watch ABC for two hours a day. In the system of Hendricks (785), users A and B would have exactly the same profile because each of them watches CNN and ABC (“programs watched”) for one hour and two hours (“time periods of television viewing”), respectively. However, user B may be switching back and forth many times between CNN and ABC during the same 3 hours. Such a behavior is obviously different from that of user A, but cannot be discerned by the system of Hendricks (785). Thus, contrary to the Examiner’s assertions, Hendricks (785) fails to show or suggest the claimed invention as recited in independent claim 8, particularly the “contextual *transition behaviors* profiling” limitation of the present application.

Alexander, like Hendricks (785) discussed above, also fails to show or suggest the above-mentioned limitations, or to supply what is missing from Hendricks. This is also evidenced by the fact that Alexander was relied upon by the Examiner merely to supply a device for providing to the one or more users the program content in accordance with the user’s demographic information.

In view of the above, Hendricks (785) and Alexander, whether considered separately or in combination, fail to show or suggest the claimed invention as recited in independent claim 8 of the present application. Thus, independent claim 8 of the present application is patentable over Hendricks (785) and Alexander for at least the reasons set forth above. Dependent claims 9 and 10 are allowable for at least the same reasons.

Accordingly, withdrawal of the rejection of claims 8-10 is respectfully requested.



*Claim 11*

Claim 11 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks (785) in view of Alexander further in view of U.S. Patent No. 5,801,747 (“Bedard”). The rejection is respectfully traversed because for at least the following reasons, Hendricks (785), Alexander, and “Bedard,” whether considered separately or in any combination, fail to show or suggest all the claimed limitations.

Claim 11 depends from claim 8 and includes all the limitations of claim 8. As discussed above, Hendricks (785) and Alexander fail to show or suggest all the limitations, particularly the claimed “contextual transition behavioral profiling” and “a program distributing device at the head-end side for providing to the user the program content in accordance with the user profile, wherein a user is classified at the client-side into at least one category group based on category prototypes received from the head-end side. (Emphasis Added). Bedard, like Hendricks (785) and Alexander discussed above, also fails to show or suggest all the limitations of claim 11, or to supply what is missing in Hendricks (785) and Alexander. Bedard is, in fact, completely silent with respect to the claimed “contextual transition behavioral profiling.” This is further evidenced by the fact that Bedard was relied upon by the Examiner merely to supply a preference engine. Thus, claim 11 of the present application is patentable over Hendricks (785), Alexander, and Bedard for at least the reasons set forth above.

Accordingly, withdrawal of the rejection of claim 11 is respectfully requested.

*Claims 12, 13, 15-18 and 21*

Claims 12, 13, 15-18 and 21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks in view of Alexander further in view of Hendricks (785). The rejection is respectfully traversed because for at least the following reasons, Hendricks, Alexander, and Hendricks (785), alone or combined, fail to show or suggest the claimed limitations.

Independent claim 12 of the present application requires, in part, a knowledge base acquirer outputting a knowledge base in the form of a “*transition matrix*” and “*a user is classified into at least one demographic group based on category prototypes transmitted from the head-end side.*” (Emphasis Added). Hendricks, Alexander, and Hendricks (785), alone or in combination, fail to show or suggest at least such limitations.

In the Office Action dated July 6, 2006 (page 14, lines 6-7) the Examiner asserts that Hendricks teaches in col. 78 and col. 71 a matrix with weight sets. It is respectfully submitted that such an assertion is incorrect. Hendricks does not have a col. 78 or col. 71. In addition, the Examiner appears to admit that Hendricks does not teach the “transition” matrix as the Examiner has not read in the limitation “transition.”

However, the Examiner further asserts that Hendricks teaches, in col. 37, lines 1-5 “the transition matrix predicting...” This is also incorrect. The part of Hendricks relied upon by the Examiner merely reads:

Referring back to FIG. 17, the fourth subroutine, as represented at function block 428, uses the final matrix developed by the correlation and weighing algorithm described above, to select a grouping (or selective filter) for each set top terminal 220.

Contrary to the Examiner’s assertions, Hendricks is completely silent with respect to “transition” as claimed, discussed earlier. The matrix of Hendricks is merely a “programs watched matrix,” which is completely different from a “transition matrix.”

Like Hendricks discussed above, Alexander and Hendricks (785) are also completely silent with respect to the claimed “transition matrix” and “*a user is classified into at least one demographic group based on category prototypes transmitted from the head-end side.*” (Emphasis Added). Thus, Hendricks, Alexander, and Hendricks (785), whether considered separately or in any combination, fail to show or suggest the claimed

invention as recited in independent claim 12 of the present application. Thus, independent claim 12 of the present application is patentable over Hendricks, Alexander, and Hendricks (785). Dependent claims 13, 15-18, and 21 are allowable for at least the same reasons.

Accordingly, withdrawal of the rejection of claims 12, 13, 15-18, and 21 is respectfully requested.

*Claims 14 and 19*

Claims 14 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks in view of Alexander further in view of Hendricks (785) further in view of Herz. The rejection is respectfully traversed because for at least the following reasons, the cited references, alone or combined, do not show or suggest all of the claimed limitations.

Claims 14 and 19 depend from independent claim 12 and include all the limitations of claim 12. As discussed above with respect to claim 12, Hendricks, Alexander, and Hendricks (785) fail to show or suggest all the limitations of claims 14 and 19. Herz, like Hendricks, Alexander, and Hendricks (785) discussed above, also fails to show or suggest all of the limitations of claim 12 more particularly the “*transition matrix*” and “*a user is classified into at least one demographic group based on category prototypes transmitted from the head-end side*” (emphasis Added), as claimed, or to supply that which Hendricks, Alexander, and Hendricks (785) lack. Thus, Hendricks, Alexander, Hendricks (785), and Herz, whether considered separately or in any combination, fail to show or suggest all the limitations of claims 14 and 19. Thus, claims 14 and 19 are patentable over Hendricks, Alexander, and Hendricks (785) for at least the reasons set forth above.

Accordingly, withdrawal of the rejection of claims 14 and 19 is respectfully requested.

*Claim 20*

Claim 20 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks in view of Alexander further in view of Hendricks (785) further in view of Herz further in view of a tutorial on hidden Markov models and selected applications in *speech recognition* by Rabiner et al. (“Rabiner”). The rejection is respectfully traversed because for at least the following reasons, the cited references, alone or combined, do not show or suggest all of the claimed limitations.

Claim 20 depends from claims 14 and 12, and includes all the limitations of claim 12. Rabiner fails to supply that which Hendricks, Alexander, Hendricks (785), and Herz lack with respect to all the limitations of claim 12, particularly the claimed “transition matrix” and “*a user is classified into at least one demographic group based on category prototypes transmitted from the head-end side.*” (Emphasis Added). This is further evidenced by the fact that Rabiner was relied upon by the Examiner merely to supply random processing. Thus, the cited references cannot possibly show or suggest all the limitations of claim 20.

Furthermore, the fact that the Examiner has used five (5) references to arrive at the claimed invention without properly supplying a motivation to combine the references, and the fact that the references are combined despite that Rabiner is directed to applications in speech recognition and has nothing to do with television programming, are strong indications that the Examiner, aided with the present application as a road map, has used impermissible hindsight reconstruction to pick and choose among isolated disclosures in the prior art. According to MPEP 2141.01, “[t]he requirement ‘at the time the invention was made’ is to avoid impermissible hindsight.”

‘[i]t is difficult but necessary that the decisionmaker forget what he or she has been taught ... about the claimed invention and cast the mind back to the time the invention was made (often as here many years), to occupy the mind of one skilled in the art.’ W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

Applicant submits that without first reviewing Applicant's disclosure, no thought, whatsoever, would have been made to the claimed "transition matrix" and "*a user is classified into at least one demographic group based on category prototypes transmitted from the head-end side.*" (Emphasis Added).

In view of the above, Hendricks, Alexander, Hendricks (785), Herz, and Rabiner, whether considered separately or in any combination, fail to show or suggest all the limitations of claim 20 of the present application. In addition, there is no motivation to combine the cited references. Thus, claim 20 is patentable over Hendricks, Alexander, Hendricks (785), Herz, and Rabiner for at least the reasons set forth above. Accordingly, withdrawal of the rejection of claim 20 is respectfully requested.

**CONCLUSION**

In view of the foregoing remarks, Applicant believes that the rejected claims are in condition for allowance. Reconsideration, re-examination, and allowance of the rejected claims are respectfully requested. If the Examiner feels that a telephone interview would help with the examination of the present application, the Examiner is encouraged to call the undersigned attorney or his associates at the telephone number listed below.

Please direct all correspondence to **Myers, Dawes Andras & Sherman, LLP**,  
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Respectfully submitted,

Myers Dawes Andras & Sherman, LLP

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